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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
BASHORE, WILLIAM L	

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/928,822	WALKER, RANDALL C.	
	Examiner	Art Unit	
	William L. Bashore	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12,14-16 and 53-57* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *7-10* is/are allowed.

6)☒ Claim(s) *1-6,11,12,14-16 and 53* is/are rejected.

7)☒ Claim(s) *54-57* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/10/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: amendment filed 3/25/2005, to the original application filed: 8/13/2001, with continuation priority filing date of **2/2/1998**, which is a continuation in part of 08/693,444 (now U.S. Patent No. 5,802,533) with filing date of **8/7/1996**. IDS filed 1/22/2002, and 5/10/2005.

2. Claims 1-12, 14-16, 53-57 pending. Dependent claims 54-57 has been added. Claims 1, 7, 11, 53 are independent claims.

Allowable Subject Matter

3. **Claims 7-10 are allowed.**

4. **Claims 54, 55, 56, 57 are objected to** as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

5. **The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:**

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 1, 3-5, 11-12, 15, 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gross et al. (hereinafter Gross), U.S. Patent No. 5,147,205 issued September 1992, in view of Hoffman (hereinafter Hoffman), U.S. Patent No. 4,121,357 issued October 1978.**

In regard to independent claim 1, Gross teaches a computerized tachistoscope which presents groups of words of a block of text in a transitory flashed manner to a user (Gross Abstract). Gross teaches timing analysis of a complete sentence prior to display (Gross column 15 lines 60-67 to column 16 lines 1-17 table, especially lines 1-10 within the disclosed table). Gross's sentence was originally authored by a human, and since said sentence is written in English, the character sequence is interpreted left to right. Gross teaches a flash display using only word groupings from an author (Gross Figures 8-10). Gross does not specifically teach display of a complete "sentence". However, Hoffman teaches a method of speech reading using a teleprompter, whereby a complete sentence is displayed and scrolled accordingly (Hoffman Abstract, column 3 lines 13-22, Figure 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the sentence display of Hoffman to Gross's sentence analysis, providing a user of Gross the benefit of seeing a whole sentence to further aid in reading comprehension. (Compare the above with claim 1 "*A computer-executable reading product fabrication methodology for producing a reading-product display of a sentence having an author specified character content, and an author specified character-sequence within the character content, wherein the reading-product display includes only author specified character content, said methodology comprising:*").

Gross teaches timing analysis of a sentence, the display of which is timed according to specific sentence related attribute analysis (i.e. punctuation, character total, etc.), therefore, said attributes are extracted (i.e. at least parsed and noted, etc. by the program) in order for Gross to make said analysis (Gross column 16 lines 10-18; compare with claim 1 "*extracting sentence specific attributes from said sentence;*").

Gross teaches display flashing of groups of words (subsequent to Gross's analysis as explained above) in an ordered sequential fashion (Gross Figures 8-10). Although flashing appears to be moving, nevertheless, said flashing is following the path of the text, instead of varying the positions of characters (see also Gross column 13 lines 58-68 to column 14 lines 1-13). However, Hoffman teaches a conventional teleprompter variably scrolling sentences upward, following the speech of a visual recording (Hoffman Figure 1, 2, column 3

lines 1-22), therefore the horizontal/vertical positions of characters are varied accordingly. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Hoffman to Gross, providing Gross the benefit of mapping varying character positions along with flashing (or bolding) of ordered target word groupings within the displayed sentence, with both teachings under the control of Gross's punctuation analysis, so that a user can see target words in the context of complete sentences, further aiding reading comprehension (compare with claim 1 "*varying vertical and horizontal positions of portions of characters of the character content of said sentence on a display surface in accordance with said attributes while maintaining said author specified character-sequence in visual display patterns of said character positions.*").

In regard to dependent claims 3-5, Gross teaches a reading aid comprising various levels of automatic speed reading (text advancement) differentiated by education difficulty level. Gross also teaches estimated display time of words, (Gross Abstract, Figure 6, column 16 lines 10-23, also column 8 lines 49-68 to column 9 lines 1-2).

In regard to independent claim 11, Gross teaches a computerized tachistoscope which presents groups of words of a block of text in a transitory flashed manner to a user (Gross Abstract). Gross teaches timing analysis of a complete sentence prior to display (Gross column 15 lines 60-67 to column 16 lines 1-17 table, especially lines 1-10 within the disclosed table). Gross's sentence was originally authored by a human, and since said sentence is written in English, the character sequence is interpreted left to right (Gross Figures 8-10). Gross does not specifically teach display of a complete "sentence". However, Hoffman teaches a method of speech reading using a teleprompter, whereby a complete sentence is displayed and scrolled accordingly (Hoffman Abstract, column 3 lines 13-22, Figure 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the sentence display of Hoffman to Gross's sentence analysis, providing a user of Gross the benefit of seeing a whole sentence to further aid in reading comprehension. (Compare the above with claim 11 "*A computer implemented method for enhancing sentence displayfor a reading fabrication product, the*

display directly corresponding to an author specified sentence content and character sequence content, said method comprising:").

Gross teaches timing analysis of a sentence, the display of which is timed according to specific sentence related attributes (i.e. punctuation, character total, etc.), therefore, said attributes are extracted (i.e. at least parsed noted, etc. by the program) in order for Gross to make said analysis (Gross column 16 lines 10-18; compare with claim 11 "*extracting sentence specific attributes from said sentence;*").

Gross teaches display flashing of groups of words (subsequent to Gross's analysis as explained above) in an ordered sequential fashion (Gross Figures 8-10). Although flashing appears to be moving, nevertheless, said flashing is following the path of the text, instead of varying the positions of characters (see also Gross column 13 lines 58-68 to column 14 lines 1-13). However, Hoffman teaches a conventional teleprompter variably scrolling sentences upward, following the speech of a visual recording (Hoffman Figure 1, 2, column 3 lines 1-22), therefore the horizontal/vertical positions of characters are varied accordingly. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Hoffman to Gross, providing Gross the benefit of mapping varying character positions along with flashing (or bolding) of ordered target word groupings within the displayed sentence, with both teachings under the control of Gross's punctuation analysis, so that a user can see target words in the context of complete sentences, further aiding reading comprehension (compare with claim 11 "*varying said sentence display quantitatively in accordance with said attributes.*").

In regard to dependent claim 12, Gross in view of Hoffman teaches presentation of words and sentences representing an original sentence sequence (Gross Figures 8-10, and Hoffman Figure 1).

In regard to dependent claim 15, Gross teaches various positioning of sections of a textual story on a screen (Gross Figures 8-10). Although flashing appears to be moving, nevertheless, said flashing is following the path of the text, instead of varying the positions of characters (see also Gross column 13 lines 58-68 to column 14 lines 1-13). However, Hoffman teaches a conventional teleprompter variably scrolling sentences

upward, following the speech of a visual recording (Hoffman Figure 1, 2, column 3 lines 1-22), therefore the horizontal/vertical positions of characters are varied accordingly. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Hoffman to Gross, providing Gross the benefit of mapping varying character positions along with flashing (or bolding) of ordered target word groupings within the displayed sentence, with both teachings under the control of Gross's punctuation analysis, so that a user can see target words in the context of complete sentences, further aiding reading comprehension

In regard to independent claim 53, claim 53 incorporates substantially similar subject matter as claimed in claim 1, and in further view of the following, is rejected along the same rationale.

Gross in view of Hoffman teach a display of sentence fragments in the context of a simultaneously displayed sentence (under control of Gross's punctuation analysis). Since the resulting display is Gross's computer screen, the positioning of characters on said screen is based upon a matrix grid of x and y coordinate pairs (see Gross Figures 1, 8-10, also Hoffman Figure 1; compare with claim 53 "*multidimensional matrix*").

7. **Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gross and Hoffman, as applied to claim 1 above, and further in view of High (hereinafter High), U.S. Patent No. 5,873,109 issued February 1999.**

In regard to dependent claim 2, Gross does not specifically teach colors. However, High teaches display of document text on a screen in real time, whereby words are sequentially displayed (one at a time) on a screen (High Abstract, column 4 lines 60-62). High teaches that colors (foreground and background) can be controlled in real time accordingly (High column 6 lines 58-63, column 11 lines 38-40, column 12 lines 63-67 to column 13 lines 1-18). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply High to Gross, providing Gross the benefit of varying background colors in accordance with Gross's

displayed words (which are displayed sequentially), further facilitating reading comprehension by making the presentation easier to read.

8. **Claims 6, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gross and Hoffman, as applied to claim 1 above, and further in view of Middlebrook (hereinafter Middlebrook), U.S. Patent No. 5,713,740 issued February 1998.**

In regard to dependent claim 6, Gross teaches timing analysis of a sentence, the display of which is timed according to specific sentence related attribute analysis (i.e. punctuation, character total, target words, etc.) (Gross column 16 lines 10-18), therefore, said attributes are at least parsed by the program, so that Gross can conduct analysis accordingly. Gross teaches rules applied to word groupings (display latency), based upon punctuation (Gross column 15 lines 60-68 to column 16 lines 1-17). Gross also teaches visual bolding (a visual attribute) of target words (Gross column 16 lines 18-23).

Gross does not specifically teach parsing and rules according to parts of speech. However, Middlebrook teaches graphically mapping a body of text on a computer (a "textscape") (Middlebrook Abstract, Figure 12). Middlebrook teaches display mapping based upon rules according to noun selection (Middlebrook column 7 lines 31-33, 53-64, column 10 lines 23-35, 44-47, 55-56). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Middlebrook's parts of speech rules to Gross's rules, providing Gross an additional display parameter to further aid in language comprehension.

In regard to dependent claim 16, claim 16 incorporates substantially similar subject matter as claimed in claim 6, and is rejected along the same rationale.

9. **Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gross and Hoffman as applied to claim 11 above, and further in view of Strasnick et al. (hereinafter Strasnick), U.S. Patent No. 5,671,381 issued September 1997.**

In regard to dependent claim 14, Gross does not specifically teach a perspective view. However, Strasnick teaches displaying textual data in an angled 3D perspective environment (Strasnick Abstract, Figures 2A, 4A, especially Figure 4C). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Strasnick to Gross's presentation, providing Gross the benefit of adding 3D perspective to its presentation for better (dramatic) visual effect.

Response to Arguments

10. Applicant's arguments filed 3/25/2005 have been fully and carefully considered but they are not persuasive.

Applicant argues on page 10 of the amendment that Gross does not specifically teach a display of one or more sentences. It is respectfully noted that the examiner relies on Hoffman to teach the limitation regarding a complete sentence. While Gross may indeed display groups of words, etc., Hoffman teaches display of complete sentences (i.e. in a teleprompter style). Since a sentence can comprise any number of words (i.e. one to three), the combination of Gross and Hoffman provides Gross the capability of presenting a scrolling display of sentences (i.e. short sentences) (instead of, or in combination with, flashing) to increase reading comprehension. Since reading comprehension is a cumulative stepwise process, it is reasonable that one begin with comprehending words, then phrases, then sentences, and so on.

Applicant argues on page 10-12 of the amendment that the cited art does not teach the claimed limitations. It is respectfully noted that Gross teaches timing analysis of a sentence, the display of which is timed

according to specific sentence related attribute analysis (i.e. punctuation, character total, etc.). The examiner combines Hoffman and Gross, so that the timing analysis can be applied to both flashing and scrolling of text, resulting in flashing and/or scrolling of sentences in a varied manner according to punctuation, etc.

The examiner appreciates the citing of attachment A, along with the livebook URL, which helps to explain (visualize) Applicant's invention. However, the pending claims still remain rejected over the combination of references at the present time.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William L. Bashore whose telephone number is (571) 272-4088. The examiner can normally be reached on 11:30am - 8:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's superviser, Heather Herndon can be reached on (571) 272-4136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

William L. Bashore

WILLIAM BASHORE
PRIMARY EXAMINER

June 25, 2005